

TECHNOLOGICAL LEADERSHIP OF SCHOOL ADMINISTRATORS THAT AFFECTS TEACHER COMPETENCY IN THE 21ST CENTURY IN THAILAND

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Abstract

This article examines the impact of educational leaders' technological leadership on 21st century teacher competency. Its purpose is to contribute to the development of educational leaders possessing the attributes of technological leadership necessary to keep pace with rapid technological advancements. The article defines technological leadership as the ability of administrators to leverage technology to drive educational progress and develop 21st century teachers. The research analyzes the influence of technological leadership on 21st century teacher competency through a review of academic literature, books, and scholarly articles. The findings highlight the critical role of technological leadership in today's dynamic societal context. Specifically, the effective application of technology in teaching, administration, and assessment is emphasized. Administrators exhibiting strong technological leadership inspire and facilitate improvements in teaching quality and teacher competency. Educational development, a key factor in driving effective and comprehensive schools, guides teachers toward competency, skills, knowledge, and abilities that enable the integration of technology into teaching activities, ensuring readiness for the evolving demands of the 21st century.

Keywords: technological leadership, school administrator, teacher competency

Introduction

Educational administrators must integrate technology into educational development. This is a crucial factor impacting the effectiveness and completeness of educational institutions, guiding teachers to incorporate technology into teaching activities to keep pace with 2st century changes. The rapid evolution of educational contexts in a technology-driven society has brought about significant and rapid changes in just a few years, impacting all organizations, particularly educational institutions. They must adapt to teaching in this technological age, laying a crucial foundation for students to become fully-fledged digital citizens, proficient in using various technologies. Educational institutions are vital in adapting basic education to teaching methods that build, develop, and enhance human capital, driving national progress and stability. The direct impact of digital transformation on education includes students. Therefore, educational leaders and teachers must understand this changing context, adapting their roles to support and encourage students to build upon their knowledge and achieve their diverse learning goals. Teachers act as mentors, guiding students to build a strong knowledge base enabling them to seamlessly pursue higher education. 21st century learning transcends subject matter to encompass "21st century life skills." Students must learn independently, with teachers designing learning experiences and facilitating the learning process (Wicharn Panich, 2012). 21st century learners must master core subjects, as well as life skills for work, learning and innovation skills, and information, media, and technology skills. For students to acquire these 21st century learning skills, teachers must possess them as well. As the world changes, so

too must 21st century teaching methods. Teachers cannot develop students' 21st century skills using traditional methods; instead, they must engage students in hands-on activities, projects, teamwork, trial-and-error learning, and self-directed learning (Wicharn Panich, 2013). Therefore, teachers require essential 21st century competencies and skills in this digital age, characterized by diverse technological and communication-based information. The Office of the Basic Education Commission has defined 21st century teacher competencies, including core competencies and functional competencies (Office of the Basic Education Commission, 2010). The Teacher Council has also defined the knowledge, competencies, and experiences of educational professionals such as teachers, school administrators, educational administrators, and educational supervisors (Teacher Council Announcement, 2020) to set standards for these professionals. The Teacher Professional Development Plan (2002-2006). stipulates the development of the teaching profession into a high-level profession for educational quality improvement. The concept of competency has also been adopted, with an emphasis on “competency” incorporated in all human resource management processes (Sema Semanan, 2007). Sema states that competency-based human resource management is a new concept applying competencies to evaluate teachers’ performance as part of expected deliverables. Meanwhile, competencies are also used in other HR areas such as recruitment, selection, appointment, development, position specification, rewards and punishment, efficiency improvement and motivation enhancement. Competencies refer to individual attributes regarding work performance, comprising knowledge, skills, abilities and other characteristics related to work. They represent behavioral characteristics that enable organizational staff to deliver outstanding work performance compared to others. Teacher competencies consist of 6 areas: 1) curriculum and learning management, 2) learner development, 3) classroom management, 4) analysis, synthesis and research for learner development, 5) teacher leadership and 6) relationship building and cooperation with the community for learning management (The Office of the Basic Education Commission, 2010). Key individuals impacting the success of educational administration in today's technology-driven world are educational leaders and administrators. These leaders must possess strong leadership qualities, vision, and an understanding of change; they must be adaptable, able to plan and implement technology integration, and foster new learning innovations for both students and teachers. They must also create innovative approaches to school administration that adapt to changing contexts, integrate modern educational management, and consistently address change.

This article focuses on the technological leadership of school administrators and its impact on 21st century teacher competency. This leadership is crucial for strengthening Thailand's basic education, enabling adaptation to the ever-changing digital landscape. It supports teachers, guides students in expanding their knowledge, helps them achieve learning goals, and allows for seamless progression to higher education. This article offers an analytical and synthetic analysis of the components of transformational leadership that school administrators can utilize in their management.

The components of technological leadership

The components of technological leadership involve a leader's ability to change the beliefs and attitudes of followers. Leaders must communicate ideas and experiences, stimulate thinking, inspire, and consistently motivate followers to achieve goals exceeding expectations. Literature reviews reveal various components of technological leadership proposed by several scholars, including. (Please provide the list of components so I can complete the translation). Kozloski (2006) views technology as a crucial component of educational management. School administrators must effectively develop their leadership, skills, and technological knowledge. Kozloski's (2006) study of principals' leadership in technology integration across 45 US states

revealed that these states established technology standards driving current initiatives. There's a push for all school administrators to exhibit technically proficient leadership according to these standards and responsibilities. Simultaneously, the business sector demands technology-proficient graduates. Meeting these expectations requires administrators to recognize the importance of effective technology use in schools and communities a crucial factor for 21st century education and the economy. Kozloski identifies six components of technological leadership. Leadership and Vision. Learning and Instruction. Products and Professional Practices. Support, Management, and Implementation. Assessment and Evaluation. and Societal, Legal, and Ethical Issues. Nikom Nak-ai (2007, pp. 58-59) studied the components of technological leadership characteristics and factors influencing the effectiveness of technological leadership for basic education administrators. The study identified six components of technological leadership characteristics. Leadership and Vision. Learning and Instruction. Productivity and Professional Proficiency. Support, Promotion, Management, and Implementation. Measurement and Evaluation. and Societal, Legal, and Ethical Considerations. Chawalit Koettip (2009) studied models for developing technological leadership in education for school administrators in the Office of the Basic Education Commission in Southern Thailand. The study aimed to analyze the components of technological leadership in education for these administrators. The research found nine components. Rules, Regulations, and Ethics of Educational Technology. Knowledge of Educational Technology. Management of Technological Infrastructure. Values and Volunteerism toward the Organization and Society. Special Skills and Abilities in Technology. Personality. Integrating Technology into Educational Management. Social Background. and Evaluation and Supervision. Banjob Boonjan (2011, p. 29) defined four components of technological leadership. Use of technology in teaching and learning. Use of technology in administration. Use of technology in assessment and evaluation. and Ethical use of technology. Phatraporn Thankijcharoensin (2015, p. 3) studied the information technology leadership of educational administrators affiliated with the Nakhon Ratchasima Primary Educational Service Area Office 7, based on a five-component framework. Information technology vision. Promotion of information technology use in teaching and learning. Use of information technology in administration. Use of information technology in assessment and evaluation. Ethics in the use of information technology. Natthaya Nawatrai (2017, p. 164) studied technology leadership, comprising five components. Visionary leadership. Digital learning culture. Professional excellence. Systematic development. Digital citizenship. Chavika T. Charoen (2019, p. 4) stated that the concept of technology leadership for administrators includes six components. Technological vision. Technological competence. Support for technology use in administration. Support for technology use in teaching and learning. Use of technology in assessment and evaluation. Ethical use of technology. In Summary components of technological leadership include. Technology Integration in Teaching and Learning: Utilizing technology in instruction to enhance student learning outcomes. Technology in Administration: Employing technology to improve the efficiency of various administrative tasks. Technology in Assessment and Evaluation: Using technology for effective assessment of student learning. Ethical Use of Technology. Adhering to ethical principles and legal regulations in the application of technology. In addition, several sub-components contribute to effective technological leadership: vision, support, resource allocation, knowledge management, cultural change initiatives, personality, social background, and technological competence. These elements are crucial for maximizing the effectiveness of technology implementation.

Analysis of the Components of Technological Leadership

The author synthesized the components of technological leadership from the perspectives and studies of seven academics, both international and Thai. While these academics used different terminology, the author found the core components to be largely the same. Therefore, the author grouped these similarly described, but differently named, components into neutral categories reflecting their common underlying elements. This resulted in a comprehensive overview encompassing various terminologies. The main components of technological leadership identified are the use of technology in teaching and learning, the use of technology in administration; the use of technology in assessment and evaluation; and ethical use of technology. Other components, such as technological vision, leadership and vision, support for management and implementation, resource allocation, technological knowledge, driving change, organizational and societal cultural awareness and values, systematic development planning, personality, social background, and technological competence, are considered sub-components of the main components mentioned above.

Definition of Competency

A review of relevant literature reveals varying definitions of "competency" among scholars and organizations. McClelland (1975) Competency refers to inherent personal characteristics that drive individuals to exceed established performance goals in their assigned tasks. Boyatzis (1982) Competency refers to underlying characteristics such as motivation, traits, skills, self-image, social roles, or a body of knowledge that individuals utilize to achieve superior performance beyond set goals. Boam and Sparrow (1992) Competency refers to a cluster of behavioral characteristics necessary for successful job performance in a specific role.

Spencer and Spencer (1993) Competency refers to underlying characteristics, including motivation, traits, self-concept, knowledge, and skills, that causally influence an individual's effective performance of duties and responsibilities, often exceeding established criteria or goals. Decha Dechawatanapaisal (2000) Competency refers to the skills, knowledge, abilities, and behaviors necessary for successful performance in a specific job. It encompasses knowing what to do, how to do it, and exhibiting appropriate behaviors and characteristics for successful task completion. This helps organizations identify the qualities of superior performers. Ukkrit Kanjanaket (2000) Competency refers to various abilities and expertise that determine the success or failure of an individual's actions or inactions. These abilities are developed through learning, experience, training, and practice. Office of the Civil Service Commission (2005): Competency refers to the knowledge, skills, abilities, and other characteristics that enable an individual to produce outstanding results compared to peers. Office of the Secretary-General of the Education Council (2013) Competency refers to the ability to perform tasks effectively by applying relevant knowledge, skills, and desirable attributes. In summary, competency (Competency) can be defined as the possession of skills, knowledge, and abilities that enable an individual to successfully perform assigned tasks and achieve outstanding results compared to others. The Office of the Civil Service Commission (2005) stated that competency refers to characteristics resulting from knowledge, skills, abilities, and other attributes that enable a person to produce outstanding work compared to other colleagues in the organization. The Office of the Secretary General of the Education Council (2013) stated that competency means the ability to perform work resulting from the application of knowledge, skills and desirable attributes. From the meanings stated by academics and agencies above, the definition of competency can be summarized as: Competency refers to the characteristics of an individual with skills, knowledge and capabilities that enable the person to successfully carry out their responsible work and enable that work to be more prominent than that of other people.

Teacher Competencies in the 21st Century

The Office of the Basic Education Commission (2013), citing the work of Harvard University psychologist McClelland, defines competence as an individual characteristic related to work performance. This includes knowledge, skills, abilities, and other work-related attributes. These behavioral characteristics enable organizational personnel to perform outstanding work. 21st century teacher competence encompasses the characteristics enabling teachers to design learning experiences and facilitate learning for 21st century students, fostering knowledge, skills, and abilities for successful future lives. The Office of the Basic Education Commission defines teacher competencies as consisting of core competencies and job-specific competencies. The five core competencies are: Working Achievement Motivation: This refers to the dedication to performing duties with quality, accuracy, and completeness. It includes initiative, creativity, planning, goal setting, performance monitoring and evaluation, and continuous improvement of performance. Service Mind: This refers to the willingness and dedication to providing services and continuously improving service efficiency to meet the needs of service recipients. Self-Development: This refers to the pursuit of knowledge, keeping up with and exchanging new academic and professional knowledge, creating knowledge and innovation to improve oneself and one's work. Teamwork: This refers to cooperation, support, encouragement of colleagues, adapting to others or teams, and appropriately taking on leadership or follower roles in collaboration. This fosters positive relationships among team members and contributes to achieving educational goals. and Teacher's Ethics and Integrity: This refers to behaving according to moral, ethical, and professional principles, serving as a positive role model for students and society, and building trust in the teaching profession. Functional Competencies: These include six competencies. Curriculum and Learning Management: This refers to the ability to create and develop curricula, design coherent and systematic learning experiences, manage learner-centered learning, utilize and develop innovative media and technology, and assess learning to effectively and efficiently develop learners. It involves creating and developing curricula, designing learning experiences that are consistent and systematic, managing learner-centered learning, using and developing innovative media and technology, and measuring and evaluating learning outcomes to develop learners effectively and achieve maximum results. Student Development: This refers to the ability to instill moral values and ethics, develop life skills, physical and mental health, democratic principles, and pride in being Thai. It includes establishing support systems to help students develop into well-rounded individuals. Classroom Management: This involves creating a positive learning atmosphere, organizing information and documents for the class/subject, and supervising classes at each grade/subject level to promote joyful and safe learning. Analysis & Synthesis & Classroom Research: This refers to the ability to understand, break down issues into smaller parts, gather and process information systematically, and use this in research to improve student learning. It also includes analyzing the organization or work as a whole and systematically addressing problems to improve work processes. Teacher Leadership: This refers to teacher qualities and behaviors that demonstrate personal connections and reciprocal learning both inside and outside the classroom, independent of school administration influence, creating a powerful learning environment to improve the quality of learning management. Relationship & Collaborative-Building for Learning Management: This involves coordinating and building positive relationships with networks of parents, the community, and other organizations, both public and private, to support and enhance learning management.

Conclusion

The technological leadership of educational administrators is paramount in today's rapidly changing society. Educational leaders must integrate technology into school administration, particularly in teaching, management, and assessment. Administrators with strong technological leadership can inspire and foster teacher development in technology, leading to improved teaching quality and teacher competency. Developing education, a crucial factor impacting the effectiveness and completeness of schools, guides teachers' work, requiring competence, skills, knowledge, and abilities to integrate technology into teaching activities to keep pace with 21st century global changes.

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